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(12) **United States Patent**
Sode

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(54) **GLUCOSE DEHYDROGENASE**

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(58) **Field of Classification Search**

None

See application file for complete search history.

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(57) **ABSTRACT**

A modified pyrroloquinoline quinone glucose dehydrogenase that exhibits a high selectivity for glucose is provided. A modified pyrroloquinoline quinone glucose dehydrogenase is disclosed in which the amino acid residue G at Position 99 of a pyrroloquinoline quinone glucose dehydrogenase (PQQGDH) represented by SEQ ID NO: 1, or the amino acid residue G at Position 100 of the pyrroloquinoline quinone glucose dehydrogenase (PQQGDH) represented by SEQ ID NO: 3, is substituted by the amino acid sequence TGZN (where Z is SX, S, or N and X is any amino acid residue). The modified PQQGDH of the present invention may additionally comprise one or more mutations selected from the group consisting of Q192G, Q192A, or Q192S; L193X; E277X; A318X; Y367A, Y367F, or Y367W; G451C; and N452X (where X is any amino acid residue).

6 Claims, 1 Drawing Sheet